

### **REMARKS**

Claims 55-62, 64, 65, 67, 71, 83, 89-91, and 103-105 are pending. Claims 1-54, 63, 66, 68-70, 72-82, 84-88, 92-103, and 106 are cancelled. Claims 55-62, 64, 65, 67, 71, 83, 89-91, 104, and 105 are amended. Accordingly, upon entry of the present amendment, claims 55-62, 64, 65, 67, 71, 83, 89-91, 104, and 105 are pending. Support for the amendments can be found throughout the specification and claims as filed and as indicated below.

#### ***Drawings and Specification***

The Examiner requires new drawings in compliance with 37 C.F.R. 1.121(d) because the drawings filed on April 10, 2010 are allegedly ambiguous for using the reference numeral “5” to indicate “substrate” in several different drawings. Applicants respectfully disagree. Nevertheless, without acquiescing to the basis of the objection and solely to advance prosecution, Applicants submit herewith replacement drawing sheets. In addition, Applicants have amended the specification to conform to the replacement drawing sheets. The amendments obviate the objection. Accordingly, Applicants respectfully request the withdrawal of the objection.

#### ***Rejections under 35 U.S.C. § 112, Second Paragraph***

Claims 55-62, 64, 65, 67, 71, 79, 81, 83, 85, 87, 89-91, and 103-105 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicants respectfully disagree. Nevertheless, without acquiescing to the basis of the rejection and solely to advance prosecution, Applicants have amended the claims, thereby obviating the rejection. Accordingly, Applicants respectfully request that the rejection be withdrawn.

#### ***Rejections under 35 U.S.C. § 103***

Claims 55-62, 64, 65, 67, 71, 79, 81, 83, 85, 87, 89-91, and 103-106 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Maher et al. (U.S. Patent Application Publication 2002/0025568 hereinafter “Maher”) and He et al. (U.S. Patent Application Publication 2003/0049862 hereinafter “He”) in view of Peeters (U.S. Patent No. 6,123,819 hereinafter “Peeters”) and Hamill et al. (“Improved patch-clamp techniques for high-resolution

current recording from cells and cell-free membrane patches,” Pflugers Archiv 391:85-100, 1981 hereinafter “Hamill”).

Applicants respectfully disagree. Nevertheless, without acquiescing to the basis of the rejection and solely to advance prosecution, Applicants have amended claim 55. As amended, claim 55 is directed to:

- A microfluidic system comprising:
- a) at least one measurement chamber, wherein the measurement chamber comprises walls and a base;
  - b) at least one hollow nanotip protruding from the walls or base of the measurement chamber and having an aperture at an end of the nanotip; and
  - c) at least one microchannel in communication with the measurement chamber, the microchannel having at least one inlet positioned to receive an aqueous solution and at least one outlet positioned to deliver the aqueous solution into the measurement chamber.

Applicants have similarly amended the only other independent claim (claim 60). None of the cited references, either individually or in combination, teach or suggest a microfluidic system comprising a measurement chamber having walls and a base and at least one hollow nanotip protruding from the walls or base of the measurement chamber. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**CONCLUSION**

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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